

**MANNITOL**  
**(MAN-nih-tol)**  
**Osmitrol, Resectisol**

**PHARMACOLOGICAL CLASSIFICATION:**

- osmotic diuretic

**THERAPEUTIC CLASSIFICATION:**

- diuretic
- reduction of intracranial or intraocular pressure

**MECHANISM OF ACTION:**

- increases the osmotic pressure of glomerular filtrate, inhibiting tubular reabsorption of water and electrolytes, promoting diuresis
- it also increases the osmolarity of plasma, which causes enhanced flow of water from tissues into the interstitial fluid and plasma, causing cerebral edema, increased ICP, and CSF volume and pressure to decrease

**INDICATIONS:**

- edema
- intraocular pressure
- intracranial pressure

**CONTRAINDICATIONS:**

- severe pulmonary congestion
- severe CHF
- severe dehydration
- progressive renal disease or dysfunction

**SIDE EFFECTS:**

- CNS: seizures, dizziness, headache
- CV: edema, hypotension, CHF, tachycardia, angina
- dehydration, fluid/electrolyte imbalance

**INTERACTIONS:**

- may enhance renal excretion of lithium
- use with digitalis may enhance the possibility of digitalis toxicity
- increases effects of other diuretics

**DOSAGE:**

- 1 g/kg infused over 30-60 minutes
- typical adult dose is 100 g